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Mike O. Heman

1469-6-002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



APPLICANT(S) : John Kollar EXAMINER :
SERIAL NO. : 08/567,564 ART UNIT :
FILING DATE : December 5, 1995 ASSIGNOR : Redox Technologies Inc.
TITLE : PREPARATION OF DIALKYL PEROXIDES

**REQUEST FOR INTERFERENCE WITH
U.S. PAT. NO. 5,371,298 UNDER THE
PROVISIONS OF 37 C.F.R. § 1.607(a)-(d)**

In accordance with the provisions of 37 C.F.R. § 1.607(a)-(d), Applicant in the above-identified application respectfully requests that an interference be declared between said application and the below-described unexpired patent, and provides the information required in § 1.607(a) as follows:

§ 1.607(a)

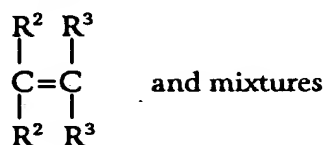
(1) Identification of Patent - U.S. Pat. No. 5,371,298 to Pourreau *et al.* (hereafter "the Pourreau '298 patent"), assigned to Arco Chemical Technology, L.P., Wilmington, Delaware, a copy of which is attached hereto as Exhibit "A".

(2) Presentation of Proposed Count -

Proposed Count

A process for the preparation of a dialkyl peroxide which

comprises reacting a reactant selected from the group consisting of an alcohol having the formula ROH, an olefin having the formula:



with an organic hydroperoxide having the formula R¹OOH in the presence of an effective amount of an acidic, at least 10% cross linked, ion exchange resin catalyst, R and R¹ being alkyl groups having to 10 carbon atoms, and R² and R³ being hydrogen or R;

or

a process for the preparation of a dialkyl peroxide comprising reacting one or more members selected from the group consisting of an alkylating alcohol of the formula ROH, and an olefin of the formula (R²)(R^{2a})C=C(R³)(R^{3a}), wherein R is C₁-C₁₀ alkyl, and R², R^{2a}, R³, and R^{3a} are independently selected from hydrogen and C₁-C₁₀ alkyl; with a hydroperoxide of the formula R¹OOH, wherein R¹ is C₁-C₁₀ alkyl; in the presence of an effective amount of a substantially solid, insoluble, heterogenous acidic catalyst; followed by separation of the reaction mixture from said catalyst.

(3) Identification of Patent Claims Corresponding to Proposed Count - Claim 1 of the Pourreau '298 patent is identical to the first, alternative portion of the above Proposed Count. The remaining claims of the Pourreau '298 patent, *i.e.*, Claims 2-7, correspond substantially to the Proposed Count.

(4) Identification of Application Claims Corresponding to Proposed Count - Claim 1 of the above-identified application is identical to the second, alternative portion of the above Proposed Count. Claims 2-10 of the above-identified application correspond to the Proposed Count. Claims 11-17 of the above-identified application are identical to Claims 1-7 of the Pourreau '298 patent, and consequently, also correspond to the Proposed Count. Thus, Claims 1 and 11 pending in the above-identified application correspond exactly to the Proposed Count.

Claims 2-10 of the above-identified application, which do not correspond exactly to the Proposed Count, nevertheless do correspond substantially thereto. Claims 2 and 3 recite specific products, *i.e.*, di-*tert*-butyl and di-*tert*-amyl peroxide, and their corresponding reactants, all of which fall within the scope of the Proposed Count. Claim 4 recites that the "substantially solid, insoluble, heterogenous acid catalyst comprises an at least 10% cross-linked ion exchange resin catalyst", thereby linking the two alternative portions of the Proposed Count, and in effect corresponding exactly thereto. Claims 5 and 6, dependent on Claims 2 and 3, introduce the same linking recital as Claim 4, thereby making those claims correspond exactly to the Proposed Count. Claim 7, dependent on Claim 1, recites that the "substantially solid, insoluble, heterogenous acid catalyst is an at least 20% cross-linked polystyrene-divinyl benzene acidic resin catalyst", and is identical to Claim 4 of the Pourreau '298 patent. It corresponds exactly to the Proposed Count in view of the disclosure at page 4, line 25 to page 5, line 2 of the instant specification of the above-identified application, which states that "the substantially solid, insoluble, heterogenous acid catalyst" comprises this specific acidic resin catalyst. Claim 8 recites a process subgenus of Claim 1 in which the compounds that react with the hydroperoxide are selected from the group

consisting only of olefins, rather than olefins and alkylating alcohols, as recited in Claim 1. Claim 8 thus corresponds substantially to the Proposed Count. Claims 9 and 10 depend on Claim 8, but otherwise have the same recital as in Claims 2 and 3. These claims thus also correspond substantially to the Proposed Count.

Claims 12-17 of the above-identified application, which do not correspond exactly to the Proposed Count, nevertheless do correspond substantially thereto. Claims 12 and 13 are identical to Claims 2 and 3 of the Pourreau '298 patent, and are analogous to Claims 2 and 3 of the above-identified application in that they recite specific products, *i.e.*, di-*tert*-butyl and di-*tert*-amyl peroxide, and their corresponding reactants, all of which fall within the scope of the Proposed Count. Claim 14 is identical to Claim 4 of the Pourreau '298 patent, and corresponds substantially to the Proposed Count in reciting that "said resin is at least 20% cross-linked polystyrene-divinyl benzene acidic resin", in view of the disclosure in the Pourreau '298 patent at Column 2, line 61 to Column 3, line 2, and 61, which recites that "[r]esins which are employed in carrying out the invention are preferably polystyrene-divinyl benzene resins which are at least 10% cross-linked. ... Amberlyst A-15 (20% cross-linked) ...". Claim 15, identical to Claim 5 of the Pourreau '298 patent, corresponds substantially to the Proposed Count in reciting a process subgenus of Claim 11 in which the compounds that react with the hydroperoxide are selected from the group consisting only of olefins, rather than olefins and alkylating alcohols, as recited in Claim 11. However, the limitation recited in Claim 11, "at least 10% cross linked" with reference to the acidic ion exchange resin catalyst, is absent from Claim 15. This broader claim is, nevertheless, supported by the disclosure of the Pourreau '298 patent at Column 2, lines 38-41, that recites "[w]here the catalyst does not have a high degree of cross-linking, the reaction of the invention is carried out using olefin as a primary

reactant with the hydroperoxide." Claims 16 and 17, while independent, are essentially species of the process genus of Claim 15 in that specific products and reactants thereof are recited. Accordingly, they correspond substantially to the Proposed Count.

(5) Application of Terms of Any Application Claim Corresponding to Count to Disclosure of Application - the terms are applied in the following table:

CLAIM 1 "reacting one or more members selected from the group consisting of an alkylating alcohol of the formula ROH"	page 3, lines 25-28; page 5, line 24 to page 6, line 1; page 7, lines 1-9; page 12, line 9 to page 15, line 11.
"and an olefin of the formula $(R^2)(R^{2a})C=C(R^3)(R^{3a})$, wherein R is C ₁ -C ₁₀ alkyl, and R ² , R ³ , R ^{2a} , and R ^{3a} are independently selected from hydrogen and C ₁ -C ₁₀ alkyl"	page 3, line 28 to page 4, line 2; page 5, lines 4-11; page 6, lines 3-12; page 7, line 1-9; page 7, line 24 to page 8, line 3; page 15, line 1 to page 16, line 15.
"with a hydroperoxide of the formula R ¹ OOH, wherein R ¹ is C ₁ -C ₁₀ alkyl"	page 4, lines 2-3; page 5, lines 8-9; page 6, line 18 to page 7, line 9; page 12, line 8 to page 16, line 15.
"in the presence of an effective amount of a substantially solid, insoluble, heterogenous acidic catalyst"	page 4, lines 3-12; page 5, lines 10-12; page 7, lines 11-22; page 9, lines 1-27; page 10, lines 9-27; page 12, line 8 to page 16, line 15.
"followed by separation of the reaction mixture from said catalyst"	page 4, lines 4-7; page 5, line 11; page 9, lines 17-27.
CLAIM 2 "preparation of di- <i>tert</i> -butyl peroxide comprising reacting one or more members selected from the group consisting of <i>tert</i> -butyl alcohol and <i>iso</i> -butylene; with <i>tert</i> -butyl hydroperoxide; in the presence of an effective amount of a substantially solid, insoluble, heterogenous acid catalyst"	page 4, lines 14-19; page 6, lines 18-20; page 12, line 8 to page 16, line 15; disclosure of acid catalyst as above.
CLAIM 3 "preparation of di- <i>tert</i> -amyl peroxide comprising reacting ... <i>tert</i> -amyl alcohol and <i>tert</i> -amylene; with <i>tert</i> -amyl hydroperoxide"	page 4, lines 19-23; page 6, lines 20-22.

<p>CLAIMS 4-6 "said substantially solid, insoluble, heterogenous acid catalyst comprises an at least 10% cross-linked ion exchange resin catalyst"</p>	<p>page 4, lines 25-27; page 8, line 19 to page 9, line 15.</p>
<p>CLAIM 7 "said substantially solid, insoluble, heterogenous acid catalyst comprises an at least 20% cross-linked polystyrene-divinyl benzene acidic resin catalyst"</p>	<p>page 4, line 27 to page 5, line 2.</p>
<p>CLAIM 8 "reacting one or more members selected from the group consisting of olefins of the formula $(R^2)(R^3)C=C(R^2)(R^3)$, wherein R is C₁-C₁₀ alkyl, and R², R³, R², and R³ are independently selected from hydrogen and C₁-C₁₀ alkyl; with a hydroperoxide of the formula R¹OOH, wherein R¹ is C₁-C₁₀ alkyl; in the presence of an effective amount of a substantially solid, insoluble, heterogenous acidic catalyst; followed by separation of the reaction mixture from said catalyst"</p>	<p>page 5, lines 4-11; page 7, line 24 to page 8, line 3 for the use of olefins alone, i.e. without any alcohol reactant; for all of the other limitations, see the corresponding portion of Claim 1 above.</p>
<p>CLAIMS 9-10 "preparation of di-<i>tert</i>-butyl peroxide comprising reacting <i>iso</i>-butylene with <i>tert</i>-butyl hydroperoxide"; and corresponding language for preparation of di-<i>tert</i>-amyl peroxide</p>	<p>page 5, lines 13-20.</p>
<p>CLAIM 11 "preparation of a dialkyl peroxide which comprises reacting a reactant selected from the group consisting of an alcohol having the formula ROH, an olefin having the formula:</p> $\begin{array}{c} R^2 \quad R^3 \\ \quad \\ C=C \\ \quad \\ R^2 \quad R^3 \end{array}$ <p>and mixtures with an organic hydroperoxide having the formula R¹OOH in the presence of an effective amount of an acidic, at least 10% cross linked, ion exchange resin catalyst, R and R¹ being alkyl groups having to 10 carbon atoms, and R² and R³ being hydrogen or R"</p>	<p>page 4, lines 25-27; page 5, line 24 to page 6, line 12; page 9, lines 1-15; page 12, line 8 to page 16, line 15.</p>

<p>CLAIMS 12-13</p> <p>"preparation of ditertiary butyl peroxide which comprises reacting tertiary butyl alcohol, isobutylene, and mixtures with tertiary butyl hydroperoxide in the presence of an effective amount of an acidic, at least 10% cross-linked ion exchange resin catalyst"; and corresponding language for preparation of ditertiary amyl peroxide</p>	<p>page 4, lines 14-27; page 6, lines 18-22; page 12, line 8 to page 16, line 15.</p>
<p>CLAIM 14</p> <p>"said resin is at least 20% cross-linked polystyrene-divinyl benzene acidic resin"</p>	<p>page 4, line 27 to page 5, line 2.</p>
<p>CLAIM 15</p> <p>"reacting an olefin having the formula:</p> $\begin{array}{c} R^2 \quad R^3 \\ \quad \\ C=C \text{ and mixtures} \\ \quad \\ R^2 \quad R^3 \end{array}$ <p>with an organic hydroperoxide having the formula R^1OOH in the presence of an effective amount of an acidic ion exchange resin catalyst, R^2 and R^3 being hydrogen or R, R and R^1 being alkyl groups having up to 10 carbon atoms"</p>	<p>page 5, lines 4-11; page 7, lines 18-20.</p>
<p>CLAIMS 16-17</p> <p>"preparation of ditertiary butyl peroxide which comprises reacting isobutylene with tertiary butyl hydroperoxide in the presence of an effective amount of an acidic ion exchange resin catalyst"; and corresponding language for preparation of ditertiary amyl peroxide</p>	<p>page 5, lines 13-20; page 7, lines 18-20, and 24 to page 8, line 3.</p>

§ 1.607(b)

Applicant urges that the examination of the above-identified application be conducted with special dispatch; that it be determined that there is interfering subject matter claimed in the above-identified application and the Pourreau '298 patent, which is patentable to Applicant, subject to a judgment in an interference; and that an interference be declared without delay.

§ 1.607(c)

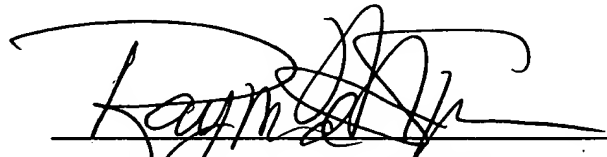
Applicant has presented claims which correspond exactly to all of the claims of the Pourreau '298 patent, as set out in detail and explained further above.

§ 1.607(d)

Applicant urges that a notice that an applicant is seeking to provoke an interference with the Pourreau '298 patent be sent to all of the patentees thereof, as well as to their assignee, Arco Chemical Technologies, L.P., and the following responsible entity:

ARCO CHEMICAL COMPANY
3801 WEST CHESTER PIKE
NEWTOWN SQUARE, PA 19073

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Raymond M. Speer', is written over a horizontal line.

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CASE DOCKET NO.: 1469-6-002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S) : John Kollar EXAMINER :
SERIAL NO. : 08/567,564 ART UNIT :
FILING DATE : December 5, 1995 ASSIGNOR : Redox Technologies Inc.
TITLE : PREPARATION OF DIALKYL PEROXIDES

ASSISTANT COMMISSIONER
FOR PATENTS
WASHINGTON, D.C. 20231

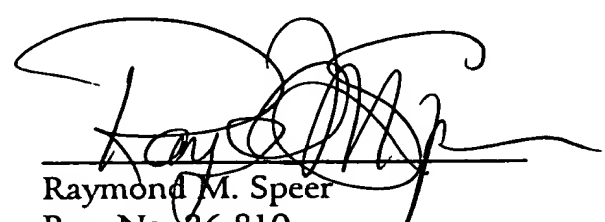
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SERIAL NO. : 08/567,564 ART UNIT :
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**PRIMA FACIE SHOWING BY APPLICANT
UNDER THE PROVISIONS OF 37 C.F.R. § 1.608(b)**

In accordance with the provisions of 37 C.F.R. § 1.608(b), Applicant in the above-identified application makes the *prima facie* showing set out below, in order to support the request for declaration of an interference with Pourreau *et al.* U.S. Pat. No. 5,371,298 (hereafter "the Pourreau '298 patent"), attached to the preceding separate paper as Exhibit "A", and assigned to Arco Chemical Technology, L.P., Wilmington, Delaware, which is the subject of said preceding separate paper filed together herewith, entitled "REQUEST FOR INTERFERENCE WITH U.S. PAT. NO. 5,371,298 UNDER THE PROVISIONS OF 37 C.F.R. § 1.607(a)-(d)".

**I. THE BASIS ON WHICH APPLICANT IS
ENTITLED TO JUDGMENT RELATIVE TO
PATENTEE IS PRIORITY OF INVENTION**

A. The Effective Filing Date of Pourreau '298 Patent Is December 22, 1993.

The effective filing date under 35 U.S.C. 120 of the Pourreau '298 patent is December 22, 1993, when application Ser. No. 171,957 was filed. This application issued as the Pourreau '298 patent on December 6, 1994.

B. The Requirements of 35 U.S.C. 135(b) Have Been Met by Applicant.

The relative statutory provision is as follows:

"A claim which is the same as, or for the same or substantially the same subject matter as, a claim of an issued patent may not be made in any application unless such a claim is made prior to one year from the date on which the patent was granted."

The Pourreau '298 patent was issued on December 6, 1994, and the above-identified application was filed on December 5, 1995, "*prior to one year from the date on which the patent was granted*". Accordingly, since the claims of the above-identified application are the same as, as well as being for the same or substantially the same subject matter, as all of the claims of the Pourreau '298 patent, Applicant has satisfied the requirements of 35 U.S.C. 135(b).

C. The Applicant Made His Invention Prior to the Effective Filing Date of The Pourreau '298 Patent.

I. Applicant Conceived the Invention of the Proposed Count Before June 29, 1979.

As shown in the Declaration of John Kollar (hereafter "J.K. Declaration), a copy of which is attached hereto as Exhibit "B", the invention of the Proposed Count was conceived by the Applicant, John Kollar, some time before June 29, 1979, when the invention was actually reduced to practice under his direction. Applicant states in his Declaration that the need for a commercial method of making di-*tert*-butyl peroxide (hereafter "DtBP"), resulted from his earlier work which established its commercial potential as a reactant in an economical route to ethylene glycol. This route and variants thereof are reflected in Applicant's issued U.S. Patents Nos. 4,337,371; 4,393,252; 4,412,084; and 4,412,085. Thus, at the time Applicant's invention was actually reduced to practice, Applicant had been seeking an improved route for the commercial production of DtBP, and had a clear mental image of the reactants and reaction conditions which would give such

a result.

2. The Invention Was Actually Reduced to Practice on June 29, 1979 by One Not an Inventor Who Was Acting under the Direction of Applicant.

The Declaration of John Christopher Kollar, D.O. (hereafter "J.C.K. Declaration"), attached as Exhibit "1" to the J.K. Declaration, states that:

"I reacted *isobutylene* with *tBHP* (*tertiary-butyl hydroperoxide*) in the presence of an effective amount of a substantially solid, insoluble, heterogenous acidic catalyst on June 29, 1979, as evidenced by the laboratory notebook entry attached hereto as Exhibit "1-a". This reaction was conducted by myself at the direction of my father, John Kollar ...

I carried out three experiments. ... [t]he first two experiments were controls, in that they utilized all of the components and conditions of the reaction except for the *tert*-butyl hydroperoxide reactant. ...

In the third experiment, I reacted 1.5 g of *tert*-butyl hydroperoxide, which I abbreviated "*t-butyl hydro*" in my laboratory notebook entry Exhibit "1-a", with 0.95 g of *iso*-butylene, with all of the other conditions being the same as in the first two experiments. The reaction successfully produced di-*tert*-butyl peroxide in a 78% yield ... I received confirmation of the positive results for the reactions which occurred on June 29, 1979, shortly thereafter when my father, John Kollar, verbally communicated those positive results to me and entered them on the same page of my laboratory notebook that contained the record of the original reactions".

Exhibit "1-a" is a copy of the record made by John Christopher Kollar, a person who is not an inventor of the invention of the Proposed Count, which he dated "6-29-79" and signed "Chris Kollar", and in which he detailed three experiments. In the first two experiments, *iso*-butylene " $\text{iso-C}_4 = \text{ "}$ ", which is the "olefin" of the Proposed Count, was reacted with methanol "Sol'n 1", the "alkylating alcohol" of the Proposed Count, in the presence of "Resins", which the J.C.K. Declaration states to be "Amberlyst A-15, a strong acid ion exchange resin of the sulfonic acid type", and is, consequently the "substantially solid, insoluble, heterogenous acidic catalyst" of the Proposed Count. In both experiments, 2 g of the acidic catalyst were employed; 10 g of "Sol'n 1" was used, which as Exhibit "1-a" indicates, was made up from 22.5 g of toluene and 2.5 g of methanol, "MeOH"; and the

reactions were carried out for 1 hour at about 60° C. Twice as much of the *iso*-butylene was used in the second experiment as in the first. Both of these experiments were controls, in that they utilized all of the components and conditions of the reaction except for the *tert*-butyl hydroperoxide reactant. As is noted in Exhibit "1-a", gas chromatographic, "GC", analysis indicated a yield of methyl-*tert*-butyl ether, "MtBE", of about 3.7% and about 5.6%, for each experiment, respectively.

In the third experiment, 1.5 g of *tert*-butyl hydroperoxide, "*t*-butyl hydro", the "hydroperoxide of the formula R^1OOH , wherein R^1 is C_1 - C_{10} alkyl" of the Proposed Count, was reacted with 0.95 g of *iso*-butylene, with all of the other conditions being the same as in the first two experiments. The reaction successfully produced di-*tert*-butyl peroxide in a 78% yield, as recorded in Exhibit "1-a", and the invention of the Proposed Count was thereby actually reduced to practice by a person, not an inventor, who was acting under the direction of Applicant, who understood what he was doing, and who recorded his actions and observations in the document of Exhibit "1-a", which has been affirmed by his testimony in his attached Declaration. The document of Exhibit "1-a" requires no corroboration, since it was prepared by one not an inventor. Moreover, as such, it serves as tangible or demonstrative evidence which may be used to corroborate the testimony of the inventor, Applicant, regarding conception, actual reduction to practice, and other issues relating to the invention of the Proposed Count. *Revisé and Caesar, Interference Law and Practice*, The Michie Company, Charlottesville, VA, 1947, Vol. III, pp. 2164-2165.

3. A Further Embodiment of the Invention Was Actually Reduced to Practice By Applicant on July 27, 1979.

In his J.K. Declaration (Exhibit "B"), Applicant confirms that he designed experiments in the field of methanol based EG production which were carried out by John Christopher Kollar, and that among these were the reaction of *iso*-butylene with *tert*-butyl hydroperoxide in the presence of a solid, insoluble, heterogenous acidic catalyst. This experiment was conducted in the presence of toluene as a diluent. Later, on July 27, 1979, Applicant carried out the same reaction under essentially the same experimental conditions, but without a diluent. The result was a 93.7% conversion, as shown in the "C-1" entry of his laboratory notebook dated "7-27-79", and attached to the J.K. Declaration as Exhibit "2".

Accordingly, it is clear that Applicant actually reduced to practice the invention of the Proposed Count before the effective filing date of the Pourreau '298 patent.

4. As Part of an Effort to Further Perfect Economic Synthesis of DtBP and Its Use in EG Commercial Production, the Invention of the Proposed Count Was Disclosed to Others on a Confidential Basis on November 2, 1979.

As is set forth in the J.K. Declaration, a disclosure agreement which carried an obligation of confidentiality between Celanese Corp. and Redox Technologies Inc., of which Applicant is the owner, was signed on November 2, 1979. A copy of pertinent portions of the disclosure, including the signature page are attached to the J.K. Declaration as Exhibit "3". It will be noted that the agreement was signed for Celanese Corporation by "A. B. Bartley, Jr.", and that, therefore, this document constitutes tangible corroborating evidence. Such evidence includes reports, notebooks, diaries, *etc.* which were made by a person other than the inventor him- or herself, and which tend to prove the assertions of the inventor regarding his or her acts of invention. *Revise and Caesar, supra.* To that agreement was attached a more detailed description of the technology which was

only outlined on page 1, paragraph 1.1, A. - C., which was entitled "Alkylation of t-Butyl Hydroperoxide with Isobutylene". The attached document describes a number of embodiments of the invention of the Proposed Count in such complete detail that it leaves no doubt that said invention had been actually reduced to practice by Applicant. The disclosure agreement and attached document thus constitute evidence of corroborating circumstances. *Revise and Caesar, supra*, pp. 2165-2167. Those circumstances included the willingness of the executive, research and other personnel at Celanese Corporation to collaborate with the Applicant in exploring and developing the "Field", defined in the disclosure agreement, part "B.", as being the same as the invention of the Proposed Count. It is very unlikely that these actions on the part of Celanese Personnel would have been undertaken if the Applicant had not actually reduced the invention to practice. Such circumstances, then, amount to a substantial corroboration of the Applicant's testimony herein.

5. Further Disclosure of the Invention of the Proposed Count to Others on a Confidential Basis Was Made on September 4, 1981; and the Report Concerning the Same, Prepared by Others, Serves to Corroborate Applicant's Testimony.

As is set forth in the J.K. Declaration, a report entitled "Redox II Design and Economics Update", prepared by "D.D. Dickinson" and "W.N. Uber" of "Celanese Chemical Company, Inc. - Technical Center - Corpus Christi, Texas" (hereafter "CCCTC"), and dated "September 4, 1981", portions of which are attached thereto as Exhibit "4", presents extensive detail relating to the invention of the Proposed Count, and concerning the process parameters with cost analysis, detailed process flow diagrams, case studies for plant capacity, and evaluations of stoichiometry and various reactant feed streams. The report of Exhibit "4" was prepared by persons other than Applicant and was distributed very

widely to personnel of CCCTC in Corpus Christi, Dallas, New York and Summit, as well as to Applicant, as is reflected in the cover sheet of the report. Accordingly, the report of Exhibit "4" constitutes tangible and demonstrative evidence which still further corroborates Applicant's testimony regarding conception, actual reduction to practice, and other aspects of the invention of the Proposed Count. It is also evidence of the corroborating circumstances involved. Such a large number of Celanese personnel involved in a project and such large amounts of concrete data being generated, are strongly indicative of the veracity of the Applicant's testimony regarding conception and reduction to practice of the invention of the Proposed Count. Further, Exhibit "4" is evidence of Applicant's effort to perfect the invention of the Proposed Count.

6. Still Further Actual Reduction to Practice and Perfection of the Invention of the Proposed Count Took Place on January 21, 1983.

As part of the ongoing collaboration between Redox Technologies Inc. and Celanese Chemical Company described further above, an alternative optimization of the basic process was devised which used alcohol by-products produced downstream to alkylate *tert*-butyl hydroperoxide to DtBP. A summary report of this work, attached to the J.K. Declaration as Exhibit "5", was presented to Celanese personnel on January 21, 1983. Although this document was prepared by Applicant, it is further tangible evidence of the circumstances surrounding Applicant's actual reduction to practice, and thus serves to further corroborate Applicant's testimony in that regard.

**II. THE BASIS ON WHICH APPLICANT
IS ENTITLED TO JUDGMENT
RELATIVE TO PATENTEE IS DERIVATION**

A. Before the Earliest Effective Filing Date of the Pourreau '298 Patent, Employees of the Putative Assignee thereof, Arco Chemical Company, Were Provided by Applicant with Detailed Information Concerning the Invention of the Proposed Count.

As stated in the J.K. Declaration, details of the invention of the Proposed Count were disclosed to employees of Arco Chemical Company (hereafter "ACC"), the putative assignee of the Pourreau '298 patent, since the actual assignee is "Arco Chemical Technology, L.P.", before the earliest effective filing date of the patent. The information was provided pursuant to a confidentiality agreement dated April 23, 1987, which is attached to the J.K. Declaration as Exhibit "6". The information provided to ACC was similar in content and scope to that which was provided to CCCTC earlier, as is shown by the documentation attached to the J.K. Declaration as Exhibit "7". Accordingly, long before the earliest effective filing date of U.S. Pat. No. 5,371,298, Applicant communicated to the patentees thereof, Pourreau *et al.*, as well as to other employees of the assignee of said patent, comprehensive and complete details concerning the invention of the Proposed Count.

B. Evidence Has Been Submitted by ACC to Establish Its Prior Possession Of, and Therefore, Its Claim to Inventorship of the Subject Matter of the Pourreau '298 Patent.

The issuance of the Pourreau '298 patent compelled Applicant to grapple with two fundamental and serious challenges: (1) How to remedy the breach of the confidentiality agreement of April 23, 1987, by ACC; and (2) How to recover

rights to the intellectual property which is the subject matter of the Pourreau '298 patent, which involves issues of both priority and originality. Regarding breach of the confidentiality agreement, Applicant set forth the elements of the breach in correspondence with the President of ACC, which was answered ultimately by a letter with enclosures dated November 21, 1995 from ACC Senior Patent Counsel John C. Martin, Jr., a copy of which is attached hereto as Exhibit "C". The enclosure was a copy of Technical Suggestion 81-73 signed October 16, 1981 and titled "Improved Process for the Production of Ditertiary Butyl Peroxide". Mr. Martin made the following statement concerning that document:

"Preparation of DTBP is described by the reaction of either TBA or isobutylene using tertiary butyl hydroperoxide and an ion exchange acid resin catalyst. The first paragraph, second typed page of the Technical Suggestion states that "a large pore size resin would be preferable." As you know, large pore size resins are known as macroreticular resins.

Therefore, this Technical Suggestion meets the paragraph 6(b) exception to confidentiality of the April 23, 1987 agreement in that the information disclosed to ARCO Chemical Company was in its possession prior to receipt from Redox."

Since the matter provided to ACC by Redox under the confidentiality agreement was tantamount to a disclosure of the invention of the Proposed Count, the ACC statement quoted above amounts to a claim of prior invention on the part of ACC.

C. The Evidence of Prior Possession or Invention Submitted by ACC Is Incompetent, Unpersuasive, and of Dubious Merit.

1. The ACC Evidence Is Incompetent.

The Technical Suggestion is hearsay. It is a written assertion, and therefore a statement, other than one made by the declarant while testifying at a proceeding, potentially offered in evidence to prove the truth of the matter asserted. As such, it is clearly hearsay under Rule 801 of the Federal Rules of Evidence, and applicable to any interference proceeding under 35 U.S.C. § 1.671(b). A certain

"E. A. Hazbun" is the declarant of the Technical Suggestion, which can be offered in evidence to prove the truth of the matters asserted therein; yet Hazbun was not under oath nor subject to cross-examination as to this prior out-of-court statement. The protections of oath, demeanor and cross-examination of the witness are absent; and the testimony would be deemed unreliable hearsay, and consequently held to be inadmissible.

The Technical Suggestion does not fall within the categories of statements which are not hearsay, set out in subdivision (d) of Rule 801, *e.g.*, prior inconsistent statements and admissions. The Technical Suggestion only falls within the business record category of hearsay exceptions, set out in Rule 803. However, there is no assurance that it meets all of the requirements necessary for it to be declared such an exception.

The declarant of the Technical Suggestion, E. A. Hazbun, is not one of the patentees of the Pourreau '298 patent, even though his or her signature appears under the legend: "Inventor(s)". This is a further challenge to the competency of the evidence submitted by ACC.

2. The ACC Evidence Is Unpersuasive.

As already set forth, the author of the Technical Suggestion, E. A. Hazbun, is asserting inventorship to the subject matter contained in the Technical Suggestion by signing it in the box labeled "Inventor(s)".

There are six (6) possible explanations for not naming Hazbun as an inventor. Not having been named as an inventor of the subject matter of the Pourreau '298 patent, Applicant contends that six (6) possible explanations exist: (1) the disclosure of the Technical Suggestion was inadequate to be considered a

conception of the invention in the Pourreau '298 patent; (2) the subject matter of the Technical Suggestion was reviewed and deemed not to be patentably distinguishable from the disclosures of the prior art at that time; (3) the subject matter of the Technical Suggestion and the Pourreau '298 patent represent different inventions; (4) Hazbun was an inventor of the subject matter of the Pourreau '298 patent, but was held to have abandoned it, after which the inventors named in the Pourreau '298 patent independently invented the same subject matter; (5) Hazbun was not named as an inventor on the Pourreau '298 patent as the result of an inadvertent error; and (6) Hazbun was not named as an inventor on the Pourreau '298 patent as the result of an intentional act of deception. Applicant considers explanations (1) and (2) to be the most consistent with the facts presently known.

The Technical Suggestion does not contain an adequate disclosure of the invention of the Proposed Count. It only proposes "reaction of TBHP and TBA over an ion exchange acid resin catalyst". First, this says nothing about the use of *iso*-butylene and other olefins as potential reactants. Second, the information in the Technical Suggestion with respect to the acid catalyst is in no way distinguishable from the teachings of the prior art of the type referred to and distinguished over in ACC's U.S. Pat. No. 5,371,298, Col. 1, ll. 26-39, *e.g.*, that in Canadian Patent 839,312 (1970), which "shows the production of ditertiary butyl peroxide by the reaction of TBA and TBHP using a gel-type 4% cross-linked sulfonic acid resin.

The statement in the Technical Suggestion that "a large pore size resin would be preferable" is not relevant or useful at all with respect to selecting an acid catalyst according to the Proposed Count.

The Technical Disclosure was at most an idea, insufficient to form a complete conception. The Technical Disclosure contains a box reading: "Test data and original references may be found on the following notebook pages 187434, 187435". However the attached notebook pages are nothing more than a written version of the Technical Suggestion typed to form "T.S. No. 81-73". Thus, there was no actual reduction to practice. The actual reduction to practice would have been a very simple experiment to perform. The failure to carry it out not only prevented the addition of information to bolster the otherwise inadequate conception, but it left the question of operability forever unanswered.

The Technical Suggestion would actually discourage any technical or business person from pursuing or even investigating its subject matter. The final sentence of the Technical Suggestion states that the process "could yield DTBP of moderate purity at a transfer price in the 30 to 50¢/lb range depending on plant scale". These figures translate to \$2.00 to \$3.25 per gallon, which is an unacceptably high cost, even in today's dollars, much less in 1981 dollars, for the use of DTBP in the production of ethylene glycol, as a cetane number improving agent for diesel fuel, or for any other commercial end use then contemplated. In Applicant's opinion, this forecast of the Technical Suggestion would have prevented any further consideration of the proposed process, and would have relegated the Technical Suggestion to the category of discarded proposals. In point of fact, the Technical Suggestion cannot be said to have been abandoned, since only an actual reduction to practice, and not a conception, can be abandoned. Further, it has been argued above that the Technical Suggestion did not even amount to a conception.

3. The ACC Evidence Is of Dubious Merit.

ACC's assertion of rights to the subject matter of the Proposed Count, comprising a defense to a claim of breach of a confidentiality agreement, and based on the Technical Suggestion as evidence, is of dubious merit and should be rejected. As already pointed out, the Technical Suggestion was authored by a person not a patentee of the Pourreau '298 patent, who put forward a proposal for a process described in general terms that read on the prior art, for which no actual reduction to practice was carried out, and which forecast a final product cost for di-*tert*-butyl peroxide that made any contemplated process within its scope economically unfeasible.

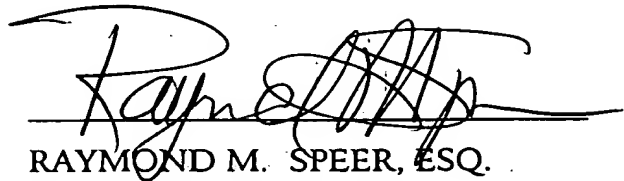
D. The Patentees of the Pourreau '298 Patent Were Not the Original Inventors of the Subject Matter of the Proposed Count, But Rather, They Derived It from Applicant, Whereby It Was Also Misappropriated From Applicant by Their Assignee, ACC, and Its Employees.

As established above, Applicant communicated all of the material facts relating to the invention of the Proposed Count to ACC under the confidentiality agreement of April 23, 1987. Without Applicant's permission, and without notice to Applicant, ACC proceeded to file the patent application which matured into the Pourreau '298 patent. The evidence which it presented in an effort to deflect a charge of breach of the confidentiality agreement, has been found to be incompetent, unpersuasive and of dubious merit. That evidence could also be used by ACC to argue that it did not derive the invention of the Proposed Count from Applicant. However, that evidence would be just as incompetent, unpersuasive and of dubious merit in an effort to establish that the Pourreau '298 patentees did not derive the invention thereof from Applicant, as it was in the effort detailed above to establish that there was no breach of the confidentiality agreement, and

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thus no misappropriation from Applicant of the subject matter of the Pourreau
'298 patent.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Raymond M. Speer", written over a horizontal line.

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